



Title: Using health equity to guide future physical activity research involving people living with serious mental illness

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29 Using health equity to guide future physical activity research involving people living with serious mental illness

Paul Gorczynski, Shanaya Rathod and Kass Gibson

Introduction

Serious mental illness can be defined as a mental, behavioural or emotional disorder that is currently diagnosable or was diagnosed within the past year, of sufficient duration to meet the statistical diagnostic criteria in the *DSM-V*, and which results in severe functional impairment that impedes or limits major life activities.¹ As a result of these severe functional impairments, people living with serious mental illness are considered vulnerable individuals. A major area of research interest in this population has been the use of physical activity to promote physical, mental and social health. This chapter will provide an overview of the importance of physical activity to the overall health and wellbeing of people living with serious mental illness and how social determinants of health need to be first addressed in this population in order to afford them the opportunity to become active and healthy. First the health benefits of physical activity as well as the consequences of physical inactivity in serious mental illness are reviewed, followed by a discussion of a lack of physical activity programming within clinical care in this population. Then, the broader social determinants of health that influence physical activity in this population are highlighted and how their neglect has affected not only physical activity, but the overall health of individuals living with serious mental illness. Finally, the chapter concludes with suggestions for future research, including ethical considerations, as well as the political engagement necessary to improve the physical activity and health of people living with serious mental illness.

Physical activity and serious mental illness

There are many physical, psychological and social health benefits to regular physical activity.^{2–4} Despite these health benefits, many people living with serious mental illness are insufficiently active. In their comparative systematic review and meta-analysis examining activity levels between individuals living with and without serious mental illness, Stubbs and colleagues found individuals living with serious mental illness engaged in roughly the same amount of light physical activity as those living with no serious mental illness.⁵ However, people living with serious mental illness engaged in significantly less moderate and vigorous physical activity (MVPA), only approximately 48 minutes per week, far below

global recommendations of 150 minutes.⁶ Such low levels of MVPA contribute to poor cardiorespiratory fitness of people living with serious mental illness and exacerbates many morbidities often found in this population,⁷ including high incidence of chronic conditions like metabolic syndrome,⁸ type 2 diabetes⁹ and cardiovascular disease.¹⁰ Furthermore, results from Stubbs et al.'s work also found that individuals living with serious mental illness residing within inpatient psychiatric facilities were less active than those who lived in the community,⁵ illustrating that those living with greater psychiatric disability were even further disadvantaged.

Inaction on inactivity

Despite much literature showing the benefits of regular activity in this population, tailored physical activity interventions for those living with serious mental illness have been sparse. There is a long history of recommending daily physical activity to people living with serious mental illness as part of their overall treatment.¹¹ In 1968, as part of the orthomolecular approach embedded within the medical model used in the US, some individuals living with schizophrenia and their families were provided with information about the psychotic illness and told about the clinical importance of daily physical activity.^{11,12} More recently, Richardson and colleagues called for the complete integration of physical activity into mental health services for people living with serious mental illness.¹³ They noted that physical activity could be delivered in group settings, composed of simple activities that were easy to organize and execute, like walking groups. They further noted that physical activity was often well received amongst individuals living with serious mental illness and that adherence to such programmes was similar to those living with no serious mental illness. Unfortunately, despite such calls for action, little has been done. Although there is sufficient evidence that physical activity improves health and wellbeing in people living with serious mental illness, there has been a complete failure at using such evidence to inform the design of sustainable interventions or produce meaningful change in clinical practice.¹⁴ Put simply: our collective knowledge around the area of physical activity and serious mental illness has not led to the overall improvement of health of this population.

Unfortunately, people living with serious mental illness experience a disproportionately high level of poor physical health when compared to those living with no serious mental illness. Ultimately, people with serious mental illness have a decreased life expectancy of approximately 10 to 20 years.¹⁵ While insufficient levels of MVPA undoubtedly are contributory factors, understanding unhealthy behaviours (e.g. inactivity, unhealthy eating, smoking) as causes of ill-health is insufficient. Therefore, those researching physical activity for people with serious mental illnesses should shift attention to the 'causes of the causes' of inactivity¹⁶ or

as Williams and Gibson (2017, p. 5) ask: “what *causes* people to behave in ways that *causes* ill-health?”¹⁷

The approach of researchers seeking to increase physical activity levels generally, and in mental health research specifically, has been to frame exercise as a cost-effective treatment modality with minimum side-effects. As such, the strategy relies on robust evidence compelling people to exercise. Such an approach stresses choice but often overlooks opportunities for activity and factors that limit the ability for people to be active. For instance, qualitative research that has involved individuals living with serious mental illness residing both within and outside psychiatric facilities in Canada found that physical activity programmes often were not available or difficult to access.^{18,19} Individual and environmental barriers such as low motivation and dealing with isolation caused by mental illness-related stigma resulted in many individuals living with serious mental illness becoming completely sedentary and resigned to a “culture of sitting”.¹⁹ Given such neglect, it is unsurprising that serious mental illness has been described as an ‘abandoned illness’ and that the complete neglect of the poor physical and social health of these individuals has resulted in what some call a “civil rights issue”.²⁰ The results of the Schizophrenia Commission, conducted in the UK in 2011 to systematically evaluate provisions of care for people living with schizophrenia, called for strategies to prevent, rather than wait for, poor physical and social health to develop in people living with serious mental illness. Specifically, with respect to physical activity, the Schizophrenia Commission called for systematic implementation of exercise prescription schemes, complete with tailored exercise programmes, at the outset of treatment. Therefore, we maintain that less research effort should be expended on demonstrating efficacy of exercise and more effort focusing on developing sustainable programmes that meet the needs, beyond physical health, for people with serious mental illness.

Physical activity interventions do not operate in isolation from other areas of support for people living with serious mental illness. In addition to addressing aspects of care related to physical activity for people living with serious mental illness, the Schizophrenia Commission called for interventions to address issues of health equity to achieve overall wellbeing.

What is health equity?

Health involves a state of complete physical, mental and social wellbeing and not just the absence of disease or disability.²¹ Equity can be defined as fairness, an ethical principle rooted in distributive justice.²² Health equity can be defined as the absence of systematic disparities in health and social determinants of health between groups with differing levels of social advantages and disadvantages.²³ Social determinants of health are conditions people are born into and live with and

are largely based on distributions of money, power and resources, both regionally and internationally.²⁴ Social determinants of health can include levels of housing stability, early age experiences, employment, food security, access to healthcare services, access to education, education attainment, income and levels of social exclusion and isolation.²⁵ Additionally, racial, ethnic, gender and sexual identities compound health disparities.²⁶ A great deal of research shows that individuals living with serious mental illness are more likely to experience deprivation in relation to the social determinants of health than those living with no serious mental illness.²⁶ From unstable housing situations to food insecurity to poor access to healthcare, the social determinants of health are good predictors of disease burden – with physical, mental and social health consequences – in people living with serious mental illness.

A growing evidence base reveals an inverse relationship between adherence to health behaviours and socioeconomic status.^{27,28} Additionally, evidence shows that regardless of how socioeconomic status is conceptualized and operationalized, individuals of low socioeconomic status, which disproportionately includes individuals with serious mental illness, are less physically active recreationally than those with higher socioeconomic status.^{29–31} Furthermore, Buck and Frosini's review of health behaviours highlighted focusing on increasing awareness does not sufficiently increase opportunity.³² A health equity perspective demonstrates improving health and wellbeing for people with severe mental illnesses requires addressing inactivity and inequality.¹⁷

How can health equity guide future physical activity research in serious mental illness?

Faulkner and Gorczynski² have recommended that physical activity research within serious mental illness adopt a behavioural epidemiological framework to enhance practice.³³ Their recommendations included the:

- . 1 Establishment of the relationship between physical activity and physical and mental health;
- . 2 Development of valid and reliable methods to measure physical activity;
- . 3 Identification of factors that determine physical activity;
- . 4 Evaluation of interventions that promote physical activity;
- . 5 Translation of research into clinical practice. In serious mental illness, translation of physical activity research into meaningful

clinical practice has consistently failed because it has neglected to acknowledge

the diverse social determinants of health. Research that has examined the correlates of physical activity in serious mental illness has found that the social determinants of health have been consistently positively associated with physical activity as well as overall improvements in physical and mental health outcomes.^{2,34,35} For instance, individuals living with serious mental illness who are employed, have higher socioeconomic statuses, higher educational attainments, eat healthier diets and are not socially isolated, tend to be more physically active and experience better overall health. This research illustrates that addressing the social determinants of health may help establish a set of optimal conditions to allow individuals living with serious mental illness to become active and to improve their health.

Although calls have been made for multi-disciplinary approaches to increase physical activity amongst individuals living with serious mental illness,³⁶ few attempts have been made to actually address the social determinants of health to help establish optimal conditions for physical activity for individuals in this population. With respect to future physical activity research, we need to embrace individual-level factors, such as psychological, cognitive, emotional and behavioural factors, but also address broader socio-ecological factors such as employment, income, education, food security and social isolation.^{2,35} This approach means three things for physical activity researchers working in serious mental illness:

- . 1 To recognize and acknowledge that people living with serious mental illness need to have their social determinants of health addressed in order to be active and healthy;
- . 2 To design physical activity interventions that currently work within the constraints of poor social determinants of health; and
- . 3 To advocate for policy changes at community, local and national levels to improve the social determinants of health.²⁵ Along with mental health professionals, researchers can use their expertise to advo-

cate for policy changes to establish programmes to address broader social determinants of health. Researchers can also become actively involved in local and federal politics, advocating for policies that address social determinants of health as well as helping to shape legislation and policy interventions that will improve the lives of people living with serious mental illness. As the Schizophrenia Commission points out,²⁰ advocating for legislation to address employment provisions within clinical care, income assistance, secure housing and support for those with greatest psychiatric disability is key to the long-term improvement of health for people living with serious mental illness. Researchers of physical activity in serious mental illness cannot ignore the evidence that clearly shows how physical activity

behaviours will be influenced by broader social factors. In a sense, physical activity researchers must play a role in helping shape the social conditions where physical activity behaviours can thrive and people with serious mental illness can lead healthier lives.

Ethical challenges and considerations

The World Medical Association Declaration of Helsinki states that “Medical research involving an underprivileged or vulnerable population or community is only justified if the research is responsive to the health needs and priorities of that population or community and if there is a reasonable likelihood that this population or community stands to benefit from the results of the research”.³⁷ This means that there is an ethical imperative for researchers to not only conduct physical activity research to ensure a robust evidence base to guide physical activity practice, but more importantly, to ensure that the wider community can benefit. From our perspective, this creates an ethical imperative for researchers to ensure that their research endeavours are at least sensitive to, if not directly address, social determinants of health.

In being sensitive to social determinants of health, researchers should give serious consideration to post-trial access to interventions for those participating in the trials. Post-trial access is more usually associated with drug trials. However, if researchers do truly consider exercise to be medicine then plans must be in place to manage participant access to exercise programmes and schemes after the research has concluded. Indeed, according to the Declaration of Helsinki: “At the conclusion of the study, patients entered into the study are entitled to be informed about the outcome of the study and to share any benefits that result from it, for example, access to interventions identified as beneficial in the study or to other appropriate care or benefits”. Naturally, there are a number of practical considerations and pressures facing researchers. Nonetheless, careful consideration to post-trial access to exercise initiatives should be considered early in research design and clearly communicated to both potential participants and other stakeholders, such as gatekeepers, in the research.

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